

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number  
**WO 2005/061119 A1**

(51) International Patent Classification<sup>7</sup>: **B05B 7/10, 7/26**

(21) International Application Number:  
PCT/DK2003/000929

(22) International Filing Date:  
22 December 2003 (22.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **NIRO A/S**  
[DK/DK]; Gladsaxevej 305, DK-2860 Søborg (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GOTTLIEB, Niels** [DK/DK]; Furesøvej 105, DK-2830 Virum (DK). **SØRENSEN, Per, Bo** [DK/DK]; Vejrogede 13, DK-2100 København Ø (DK). **WULLSCHLEGER, Heinz** [CH/DK]; Septembervej 54, DK-2730 Herlev (DK).

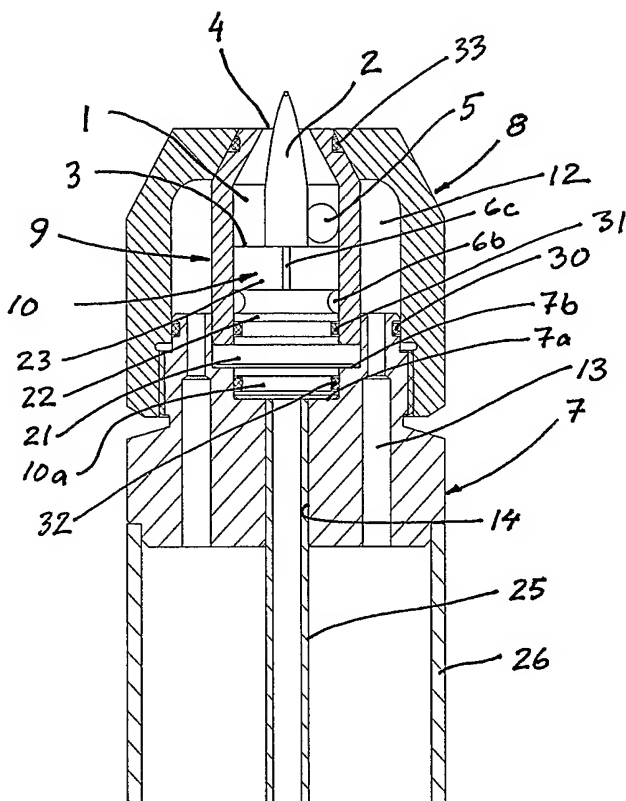
(74) Agents: **CARLSSON, Eva et al.**; Internationalt Patent-Bureau A/S, Høje Taastrup Boulevard 23, DK-2630 Taastруп (DK).

(81) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT (utility model), PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,

[Continued on next page]

(54) Title: NOZZLE FOR ATOMISING A LIQUID BY MEANS OF A GAS AND METHOD OF ATOMISING



(57) Abstract: A nozzle for atomising a liquid by means of a gas comprises a mixing chamber (1), one or more liquid inlets (6c) and at least one tangential gas inlet (5) to the mixing chamber. An outlet (4) is positioned at the downstream end of the mixing chamber (1). A centre body (2) having a generally converging configuration, seen in the flow direction, is provided in the mixing chamber (1). The liquid inlet (6c) or inlets is/are positioned at or near the upstream end (3a) of the mixing chamber (1) and in the upstream direction with respect to the gas inlet (5) or inlets.

WO 2005/061119 A1



SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

— *with international search report*